

REMARKS

The specification has been amended to incorporate sequence identification numbers for the amino acid and nucleotide sequences in the specification where they have not previously been included. The sequence listing has also been amended to incorporate new SEQ ID NOs:21 to 34 which correspond to the sequences found in the specification as filed at:

- Page 31 for SEQ ID NOs:21 and 22 ;
- Page 40 and Table 4 for SEQ ID NOs:23-33;
- Page 30 and Table 4 for SEQ ID NOs: 28-31; and
- Page 28 and Table 4 for SEQ ID NOs:32-34

Accordingly, the amended specification and sequence listing do not include new matter, but simply assists cross referencing of the sequences in the description with the listing. Pursuant to 37 C.F.R. § 1.825(a) substitute sheets of the paper copy of the sequence listing incorporating SEQ ID NOS: 21-34 is submitted herewith.

Claims 12-22 are pending and under examination in the above-identified application. Claims 12-21 have been rejected. Claim 22 has been objected to as being dependent on rejected claim 16. With this amendment, claims 12-14 have been canceled without prejudice. Claims 15-21 have been amended to define that the peptide is “isolated.” Support for this amendment can be found throughout the specification as filed and at, for example, page 1, line 27 of the specification. Furthermore, claim 15 has been amended and rewritten in independent form including all the limitations of base and previously presented claim 15. New claim 23 has been added. Support for the new claim can be found throughout the specification as filed and at, for example, page 9, lines 19-29.

The amendment to the claims does not raise any issue of new matter and entry thereof is respectfully requested. Applicants have reviewed the Office Action mailed September 16, 2008, and respectfully traverse all grounds of rejection for the reasons that follow. Applicants also thank the Office for withdrawing the previous claim restrictions.

Rejection Under 35 U.S.C. § 101

The rejection of claims 12-21 under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter is respectfully traversed. Applicants respectfully submit that this rejection has been rendered moot by cancellation of claims 12-14 and amendment of claims 15-21 to include the word “isolated.” Accordingly, Applicants respectfully request that this rejection be withdrawn.

Upon withdrawing the rejection of claim 16, Applicants respectfully request the Office to withdraw the objection of claim 22 as well. Claim 22 is dependent from claim 16.

Rejection Under 35 U.S.C. § 102 and 103

The rejection of claims 12-15 under 35 U.S.C. § 102(b) as allegedly being anticipated by Ventura et al. *Micorbiol.* 68:6172-6181 (2002) (“Ventura”) and by the sequence submitted by Ehrmann M.A. to the EMBL/GenBank/DDBJ database in March 2002 (“Ehrmann”) is respectfully traversed. With respect to claims 12-14, Applicants respectfully submit that this reject has been rendered moot by the cancellation of these claims. With respect to claim 15, Applicants aver that this claim is not anticipated by either of Ventura or Ehrmann because the peptides of the prior art are less than about 87% homologous to the SEQ ID NO:2 while claim 15 is directed to a peptide “having at least about 90%” homology with SEQ ID NO:2. See Exhibit A for the STIC homology results for Ehrmann sequence and Score Table of ClustalW2 homology results for Ventura APF1 and APF2 sequences shown in Figure 3(a-b) of Ventura as compared to SEQ ID NO:2.

The rejection of claims 12-15 under 35 U.S.C. § 103 as allegedly being obvious over Ventura and Ehrmann sequences is respectfully traversed. The Office has provided no reasons for this rejection. Nor has the Office provided any reason as to why or how one of ordinary skill in the art would have used the information in Ventura or Ehrmann and would have arrived at the claimed sequences. Nonetheless, with respect to claims 12-14, Applicants respectfully submit that this reject has been rendered moot by the cancellation of these claims. With respect to claim 15 which is directed to a sequence of at least about 90% homology with SEQ ID NO:2, —which is different from the Ehrmann or Ventura sequences being less than about 87% homologous to

Application No.: 10/576,982

SEQ ID NO:2— Applicants submit that the Office has not set forth a prima facie case that Ehrmann and/or Ventura render claim 15 obvious. As such, Applicants respectfully request that this rejection be withdrawn.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Enclosures: Exhibit A